

REMARKS:

- 1) A minor clerical correction has been made in the specification at page 10 line 14, without introducing new matter. Please enter the specification amendment.
- 2) The claims have been amended as follows. Claim 1 has been amended to make clear that the guide element is the adapter, i.e. the guide element and the adapter are one and the same component, whereby this adapter is adapted to guide the drill bit, guide the centering pin that is axially movable therein, and lock the drilling tool to the first clamping section. This amendment is supported in the original disclosure, for example at page 12 lines 9 to 18, and especially lines 14 to 18. Thus, the amendment does not introduce any new matter. Claim 5 has been amended for conformance with amended parent claim 1. Claims 2, 11 and 13 have been canceled. Entry and consideration of the claim amendment are respectfully requested.
- 3) Referring to section 3 on pages 2 to 3 of the Office Action, the rejection of claims 1, 2, 5, 7, 11 and 12 as obvious over US Patent 2,418,956 (Silver) in view of US Patent 4,027,992 (Mackey Sr. et al.) called "Mackey" herein, is respectfully traversed.
- 4) Present independent claim 1 has been amended to recite that the guide element and the adapter is actually one and the same component, i.e. there is no separate guide element. Instead, the adapter itself is used as a guide element, and thus involves

several features itself. Namely, the adapter is adapted to guide the drill bit, and guide the centering pin, and lock the drilling tool to the first clamping section. This embodiment of the invention is disclosed in the original specification at page 12 lines 9 to 18, for example. This embodiment is extremely simple in its construction, arrangement and operation. The prior art would not have suggested such a combination of features.

- 5) Silver discloses a locating and drilling fixture that includes first and second clamp sections, a drill bushing guide element (5) for guiding a drill bit (26) and a removable centering pin (17) as pointed out by the Examiner.

However, Silver does not disclose and would not have suggested that the guide element is an adapter that comprises a locking device for locking the drilling tool to the first clamping section. To the contrary, Silver teaches away from any arrangement in which the clamping mechanism is locked to the drilling tool itself.

Namely, Silver discusses earlier prior art in which the clamping mechanism or jig is provided as part of the drill, and points out the disadvantage that the drill is thereby not available for other types of work (col. 1 lines 3 to 10). As a result, Silver purposely provides a clamping mechanism that is **NOT** provided as a part of or secured to the drilling tool itself. Instead, the drilling tool and the drill bit (26) remain unsecured and freely moveable relative to the clamping mechanism (see Fig. 1).

While the arrangement provides radial support for the drill bit (26) during the drilling operation, there is no secured connection between the drilling tool and the clamping mechanism (see col. 3 lines 46 to 56).

6) The Examiner has further turned to Mackey for disclosing an alleged adapter (8, 10).

However, a person of ordinary skill in the art would not have been motivated to consider such contrary teachings of Mackey, in view of the express teachings of Silver to avoid securely connecting the clamping fixture to the drill tool (see col. 1 lines 3 to 10 of Silver).

Furthermore, even considering the combination of Mackey and Silver, the present inventive arrangement would not have been suggested. Present claim 1 requires that the adapter is arranged and adapted to guide the drill bit, and to guide the removable centering pin, and to securely lock the drilling tool to the first clamping section of the clamping mechanism. As discussed above, Silver does not disclose any such adapter. Moreover, even the alleged adapter (8, 10) of Mackey does not correspond to or suggest the presently claimed adapter with its three above mentioned features. To the contrary, the adapter shank (8) and the spindle chuck adapter (10) of Mackey do not guide the drill bit in the clamping section, and do not guide a removable centering pin in the clamping section, and do not securely lock the drilling tool to the clamping section.

To the contrary, a guide boss (30) and arbor (32) are secured to a jig or fixture (42), and serve to guide the drill

bit (38) (col. 4 lines 24 to 28). But, this drill bit (38) is not removable but rather is retained in the arbor (32) and guide boss (30) due to its retaining shoulder (34) (see col. 3 lines 48 to 53). Thus, the arrangement of Mackey expressly excludes the possibility of providing a removable centering pin to be guided in the same manner but alternatively to the drill bit.

Furthermore, while the guide boss (30) and arbor (32) as well as the shield arrangement (22, 23, 24, 26) remain secured to the jig or fixture (42), the adapter shank (8) and the spindle chuck adapter (10) are freely removable and not secured relative to the other components or the fixtures (col. 1 lines 43 to 45; col. 4 lines 1 to 19). Thus, there is no secured locking connection between the adapter shank (8) and the spindle chuck adapter (10) on the one hand, and the fixture (42), arbor (32), guide boss (30) or shield arrangement (22) on the other hand.

Still further, the adapter shank (8) and the spindle chuck adapter (10) are not secured to the drilling tool, but rather form a rotating extension of the drill bit shank itself, and are simply chucked into the spindle chuck (4). Thus, since the adapter components (8, 10) actually form a rotating component of the drill bit, it would not even have been possible for these adapter components (8, 10) to securely lock the drilling tool to a first clamping section of a clamping arrangement.

Compare that to present Fig. 3, in which the adapter (20) securely locks the tool head (19A) of the drilling tool (19) to the first clamping section (9) of the clamping mechanism. While the tool head (19A) is securely locked to the clamping mechanism by the adapter (20), the tool head (19A) further provides an

automatic feed advance of the rotating drill bit (DB) as explained in the present specification (see page 12 lines 5 to 12).

Even a combination of Mackey and Silver would not have suggested such an adapter that securely locks a tool head of a drilling tool to the clamping mechanism, while allowing the rotation and axial feed advance of the drill bit during the drilling operation. Silver provides no suggestions in this regard. Further to the contrary, the adapter components (8, 10) of Mackey form an adapter for the drill bit itself, and therefore undergo the same rotation and axial feed advance as the drill bit, and do not securely lock the drilling tool to any clamping mechanism.

For the above reasons, even if the drill bit adapter components according to Mackey had been considered in combination with the clamping arrangement according to Silver, there still would have been no adapter that securely locks the drilling tool to the first clamping section as presently claimed.

The dependent claims are patentable already due to their dependence.

- 7) The Examiner is respectfully requested to withdraw the rejection of claims 1, 2, 5, 7, 11 and 12 as obvious over Silver in view of Mackey.
- 8) Referring of section 4 on pages 3 to 4 of the Office Action, the rejection of claims 6, 8, 9, 12 and 13 as obvious over Silver in view of Mackey and further in view of GB 2 288 356, is

respectfully traversed. Claim 13 has been canceled. Claims 6, 8, 9 and 12 depend from claim 1, which has been discussed above in comparison to Silver and Mackey. The additional reference GB 2 288 356 has been cited in connection with a clamping drive. Nonetheless, this reference does not disclose and would not have suggested an adapter as defined in present claim 1 and discussed above. Thus, even a combination of GB 2 288 356 with Silver and Mackey would not have suggested the invention of claim 1, and its further dependent claims. The Examiner is respectfully requested to withdraw the rejection applying Silver in view of Mackey and GB 2 288 356.

- 9) Referring to section 5 on page 4 of the Office Action, the rejection of claim 10 as obvious over Silver in view of Mackey and further in view of US Patent 6,413,022 (Sarh) is respectfully traversed. Claim 10 depends from claim 1, which has been discussed above in comparison to Silver and Mackey. Sarh has been cited with regard to a suction device. Nonetheless, Sarh fails to disclose or suggest an adapter as defined in present claim 1, that securely locks the drilling tool to a clamping mechanism and also guides a drill bit and a centering pin. Sarh discloses a linear bushing assembly (114) including a bushing assembly (130) that is fixed to a collar (136a) of a drilling tool (90). However, that arrangement is displaced away from and does not guide the drill bit or any centering pin. Thus, even a combined consideration of the disclosure of Sarh with Silver and Mackey would have failed to suggest the present invention of claim 1 and its dependent claim 10. The Examiner is respectfully

requested to withdraw the rejection applying Silver in view of Mackey and Sarh.

10) Favorable reconsideration and allowance of the application, including all present claims 1, 5 to 10 and 12, are respectfully requested.

Respectfully submitted,  
Juergen OTTEN  
Applicant

WFF:he/4604  
Enclosures:  
Transmittal Cover Sheet  
Term Extension Request  
Form PTO-2038

By Walter F. Fasse  
Walter F. Fasse  
Patent Attorney  
Reg. No.: 36132  
Tel. 207-862-4671  
Fax. 207-862-4681  
P. O. Box 726  
Hampden, ME 04444-0726

CERTIFICATE OF FAX TRANSMISSION:

I hereby certify that this correspondence with all indicated enclosures is being transmitted by telefax to (571) 273-8300 on the date indicated below, and is addressed to: COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450.

Walter F. Fasse 5/8/06  
Name: Walter F. Fasse - Date: May 8, 2006